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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7340 (1974): Pliers, pin and ligature cutting, dental
[MHD 8: Dentistry]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard

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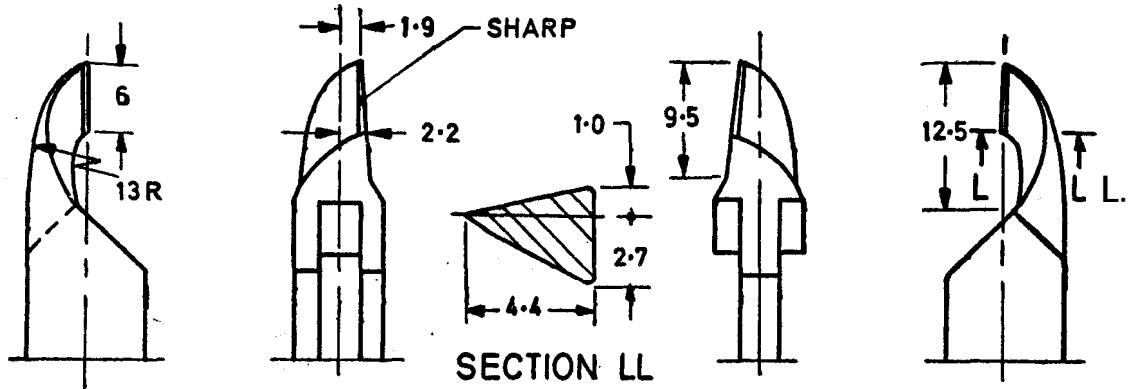
SPECIFICATION FOR

PLIERS, PIN AND LIGATURE CUTTING, DENTAL

1. **Scope** — Dimensions and other requirements for pin and ligature cutting pliers used in dentistry.
2. **Material** — Stainless steel conforming to Designation 40Cr13 of IS : 6603-1972 ' Specification for stainless steel bars and flats '.
3. **Shape and Dimensions** — As shown in Fig. 1.
4. **Workmanship and Finish**
 - 4.1 The two halves of the pliers shall move freely about the joint without any play and shall open fully. The movement of the instrument shall be even and the jaws shall register accurately.
 - 4.2 The surfaces of the pliers shall be finished smooth except the outside surface of handles which shall have matt finish. The edges shall be even, free from pits and burrs and rounded except the cutting edge which shall be sharp.
 - 4.3 *Joint* — Box joint conforming to 6 of IS : 3642-1966 ' General requirements for surgical instruments '. The pin shall be flush with the surfaces of the pliers.
 - 4.4 The pliers shall be passivated the polished bright.
5. **Heat Treatment** — The pliers shall be hardened and tempered to 500 to 600 HV.
6. **Tests**
 - 6.1 *Corrosion Resistance Test* — Scrub the sample with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the sample. Immerse in copper sulphate solution at room temperature for 6 minutes and wash off with fresh water or wipe with wet cotton wool.
Make up the solution as follows:

Copper sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$)	4'0 g
Sulphuric acid (H_2SO_4) (sp gr 1'84)	10'0 g
Distilled water [see IS : 1070-1960 Specification for water, distilled quality (revised)]	90'0 ml

 No red stains or spots on the sample shall be allowed but dulling of the polished surface may be permitted.
 - 6.2 *Practical Test* — The pliers shall be tested by cutting orthodontic annealed stainless steel wire of dia 0'23 to 0'30 mm. The wire shall be cut easily and cleanly. The test shall be carried out six times at the same place on the cutting edge of the pliers. On completion of the test the cutter in particular the cutting edge, shall show no sign of damage when examined under a microscope at a magnification of 20 X.
7. **Marking** — Each plier shall be legibly and indelibly marked with the manufacturer's name, Initials or trade-mark; the letters 'SS'; and the country of manufacture.
- 7.1 *ISI Certification Marking* — Details available with the Indian Standards Institution.
8. **Backing** — As given in 8 of IS : 4314- 1967 ' Specification for pliers, cone socket, dental '.

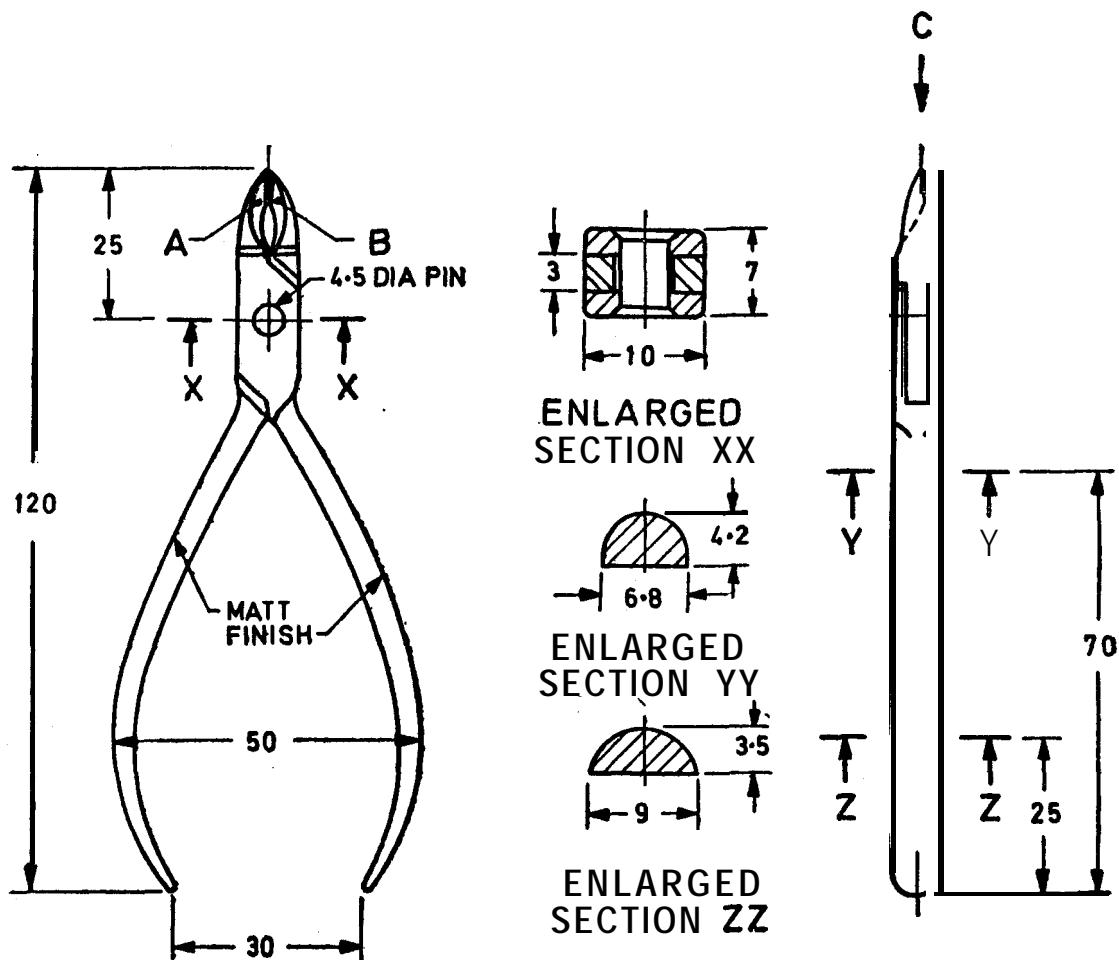


ENLARGED VIEW A



ENLARGED VIEW B

ENLARGED VIEW C



All dimensions in millimetres.

FIG. 1 PLIERS, PIN AND LIGATURE CUTTING, DENTAL